

REMARKS

Claims 1-18 and 20-24 are pending in this application. By this Amendment, the specification and claims 9 and 12 are amended. The amendments to the claims 9 and 12 are solely for clarity purposes and not for reasons of patentability. Reconsideration and allowance of this application are respectfully requested.

OBJECTIONS TO THE SPECIFICATION

The Examiner objected to the Specification requesting the insertion of the copending patent application number. Accordingly, Applicants have amended the Specification as requested. Withdrawal of this objection is respectfully requested.

OBJECTIONS TO THE CLAIMS

The Examiner has objected to claims 2-10 due to minor informalities.

With regard to claim 2, the Examiner asserted that one is unable to determine if the “at least two sample variance estimates or one sample variance estimate based on at least two samples.” Accordingly, Applicants submit that the term “at least two sample variance estimates” illustrate two separate variance estimates.

Regarding claim 8, the Examiner objected to this claim for lack of antecedent basis. However, it is submitted that claim 8 which depends on claim 7, provides appropriate antecedent basis, as claim 7 recites that “N= a number of the plurality of samples”. Thus, withdrawal of the objection is respectfully requested.

CLAIM REJECTIONS – 35 U.S.C. § 112

Claims 9 and 12 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner asserts that claims 9 and 12 does not enable one skilled in the art to translate the scaled SINR estimate by adding the number of the plurality of samples alone.

Applicants have amended claims 9 and 12 to recite "based upon at least adding the number of the plurality of samples". Reconsideration and withdrawal of the rejection are respectfully requested.

CLAIM REJECTIONS – 35 U.S.C. § 102

Claims 1-3, 13 and 14 stand rejected under 35 U.S.C. § 102(b) as allegedly being unpatentable over Dapper et al. (hereinafter "Dapper"), U.S. Patent No. 5,809,065. This rejection is respectfully traversed.

Applicants submit that Dapper fails to disclose or suggest a method of estimating a signal-to-interference+noise ratio (SINR), comprising, at least:

generating an initial SINR estimate based on a mean of a plurality of samples and a sample variance estimate of the plurality of samples;

scaling the initial SINR estimate; and

translating the scaled SINR estimate

as recited in claim 1.

The Examiner alleges that a signal power 36 corresponds to a mean of a plurality of samples, and a noise power 30 corresponds to a sample variance estimate of the plurality of samples. However, it is submitted that the noise power 30 is not a sample variance estimate of a plurality of samples. Dapper discloses that the noise power 30 is merely a variance of the error sequence (col. 2, lines 55-59).

Further, Applicants submit that Dapper does not teach or suggest generating an initial SINR estimate, as recited in claim 1.

In col. 2, lines 34-38, Dapper discloses:

Digital demodulator 16 produces samples of the digital symbols 18 which are corrupted by noise or interference. The noisy symbols 18 are applied to a decision device 20 which estimates the transmitted data symbols sequence by examining the noisy input symbols 18 from the demodulator 16 . . . The output 22 of decision device 20 consists of a sequence of data symbols which are subtracted from the noisy input

samples 18 to decision device 20 to reduce an error estimate 24.

Accordingly, Dapper teaches a first estimation procedure prior to conducting an error estimation 24. This renders the system and method of Dapper more complicated and less efficient.

Further, Dapper fails to disclose a method of estimating a signal-to-interference+noise ratio (SINR). Instead, Dapper discloses a signal-to-noise ratio for compatible digital broadcast system signals.

Because Dapper fails to disclose each and every feature of claim 1, it cannot provide a basis for a rejection under 35 U.S.C. § 102. Withdrawal of the rejection is respectfully requested.

Claims 2, 3, 13 and 14 are allowable by virtue of their dependency on independent claim 1, and for its own merits. Withdrawal of the rejection is respectfully requested.

Claim 18 is rejected under 35 U.S.C. § 102(e) as being anticipated by Buehrer et al. (hereinafter “Buehrer”), U.S. Patent No. 6,614,857. This rejection is respectfully traversed.

Applicants submit that Buehrer fails to disclose or suggest, *inter alia*, combining the first and second SINR estimates to produce a composite SINR estimate, as recited in claim 18.

As previously argued in the last response, Applicants submit that the estimated step of Buehrer is a comparison step, rather than a combining step.

Even assuming *arguendo* that Buehrer teaches a combining step, it is submitted that the Examiner’s alleged “combining”, as discussed in col. 4, lines 54-56 and equation 7 of Buehrer, is submitted that Buehrer is not to produce a composite SINR estimate, but rather to set a factor indicating the degree to which the adapted channel estimate is adapted.

Accordingly, Buehrer fails to disclose or suggest “combining the first and second SINR estimates to produce a composite SINR estimate”, as recited in claim 18.

Because Buehrer fails to disclose each and every feature of the claimed invention, it cannot provide a basis for a rejection under 35 U.S.C. § 102. Withdrawal of the rejection is respectfully requested.

CONCLUSION

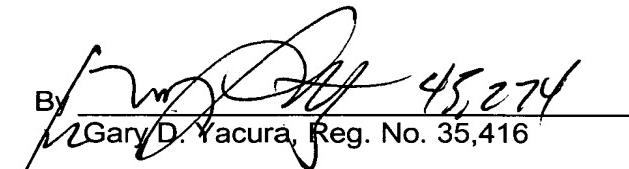
Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of each of claims 1-20 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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